

CO-OPERATION WITH ROAD SUPERVISORS

Lewis E. Roberts,
Miami County Surveyor

Anyone elected to public office must co-operate to the fullest extent with the various other officials met on official duties if the maximum service is to be rendered by each office.

The county surveyor's relation to the building of drainage ditches is strictly that of a designing and construction engineer until the work is finally completed and accepted. From then on his status is that of a maintenance engineer.

With regard to highways, the condition is slightly changed. The county engineer designs the roads and bridges, stakes out the work and supervises the construction, after which, if everything is satisfactory, the work is accepted by the Board of County Commissioners as a part of the county road system. The maintenance of these roads and bridges is then the duty of the county, and the county road supervisor has charge of the work. His office is entirely separate from the county engineer's office.

Now the question arises, how can the county engineer and the road supervisor co-operate in order to help each other? Following are a few examples:

The engineer is working on an open ditch survey, and while determining the route where the old ditch crosses the highway, he makes an inspection of the present bridge and finds that the abutments have been undermined by the last high water. This is immediately brought to the attention of the highway supervisor. After some discussion of ways and means to make quick repairs and save the structure, the supervisor puts his force to work and the repairs are satisfactorily made, thereby saving the structure and possibly saving some motorist's life.

While working on a survey for a large ditch project, I had occasion several times to cross a bridge on a road which was not heavily traveled. Brush and weeds had grown up alongside the road. The swirling water had cut in behind one wing of the abutment, carrying away the fill. This condition had occurred under the overhanging brush, and no one had noticed it. The caving had advanced to within six inches of the edge of the traveled portion of the road. I immediately notified the road supervisor, and a few truck loads of rock took care of the situation in good shape.

Another situation where the county engineer can co-operate with the road supervisor is in connection with W.P.A. work on the county highways. We have a W.P.A. project on our county highways which is sponsored by the county under the supervision of the highway supervisor. This involves im-

provement of existing highways by widening, grading, side-ditching, and, in some cases, graveling and black topping. Whenever a road is set up for this work, the surveyor sends out a crew to locate the corner stones and set the right-of-way stakes on both sides of the road at intervals of 100 feet. In this way the reconditioned road is correctly located and is built on straight lines between corner stones, or curves if the road is not on section lines. Curves are run in with a transit, and the W.P.A. labor has no trouble following the correct line of the improvement.

The W.P.A. furnishes all the labor on the work and the highway department furnishes all necessary trucks and power machinery, together with operators, pipe culverts, cement, sand, gravel, bituminous materials, and stakes for staking out the work. Some reinforced concrete culverts and bridges are being built under the same procedure.

The county engineer while traveling about the county observes road intersections where weeds, brush, or field corn have obscured the view from each of the intersecting roads, presenting a serious traffic hazard. This condition is immediately reported to the highway supervisor, and stop signs are installed on the least traveled road, or the obstructions are removed.

Recently a man called me on the telephone at night and reported that there was a sunken place in the road at a point where the road men recently had put in a new cross-drain. Rains had caused the back fill to settle and form a depression across the road. I secured all the information necessary, informed him that I would see that it was repaired as soon as possible, and immediately called the highway supervisor. The necessary repairs were made the next morning.

These are a few of the ways in which the county surveyor and engineer can co-operate with the county highway supervisor.

BASE STABILIZATION IN BOONE COUNTY

Leaton Day,
Boone County Road Supervisor

Base stabilization has been widely discussed by road men during the past few years. Different materials are used with different methods of application, but I shall discuss only the methods used in Boone County.

A test should be taken to determine the depth and type of material in the old road to be stabilized. In Boone County we find there is sufficient clay in the base for this type of construction. If there is not enough material to insure a com-